

<u>SUBJECT</u>		<u>DATE</u>
1056. PCB Reporting and Recordkeeping Relief	ENCORE	JAN 12, 2014
1057. Commercial Chemical Products and Unused Batteries	ENCORE	JAN 16, 2014
1058. PCB Annual Records Retention Timeframes		JAN 31, 2014
1059. Satellite Accumulation within a ≤90-day Accumulation Area		FEB 7, 2014
1060. PCB Certificate of Disposal Relief	ENCORE	FEB 13, 2014
1061. Used Oil and Weekly Inspections		FEB 20, 2014
1062. Bags and RCRA Container Definition		FEB 27, 2014
1063. Product Storage Tank Residues and Hazardous Waste Regulations	ENCORE	MAR 6, 2014
1064. Spent Lead-Acid Batteries and Accumulation Time Limits		MAR 13, 2014
1065. Land Disposal Restrictions and Dates of Accumulation		MAR 23, 2014
1066. Universal Waste Accumulation Time Limits and the One Year Rule		MAR 29, 2014
1067. PCB Manifest Discrepancy Reports and Estimated Waste Weights		APR 6, 2014
1068. PCB Wastes, Independent Transporters and Confirmation of Receipt		APR 10, 2014
1069. Paint Wastes and The Applicability of the F001-F005 Listings to Ingredients	ENCORE	APR 20, 2014
1070. Other Paint Wastes and the Applicability of the F001-F005 Listings	ENCORE	APR 24, 2014
1071. Multiple Characteristic Hazardous Waste Codes and Underlying Hazardous Constituents		MAY 1, 2014
1072. TSCA "No PCBs" versus "Non-PCBs" versus "Nondetectable PCBs"	ENCORE	MAY 8, 2014
1073. Purpose of Keeping a Hazardous Waste Container Closed	ENCORE	MAY 15, 2014
1074. PCB Containers and Multiple Removed From Service Dates		MAY 22, 2014
1075. Satellite Accumulation and RCRA Personnel Training		MAY 29, 2014
1076. Transporter Signatures on Hazardous Waste Manifest and Multiple Drivers		JUN 5, 2014
1077. Universal Waste and Nonhazardous Batteries		JUN 12, 2014
1078. Universal Waste and Incandescent Bulbs		JUN 19, 2014
1079. The PCB Mark and the Fields "Also Contact" and "Tel No"	ENCORE	JUN 29, 2014
1080. Halon Fire Extinguishers - Banned or Not Banned?	ENCORE	JUL 5, 2014
1081. Cabinets as RCRA Containers	ENCORE	JUL 13, 2014
1082. LDR Storage Prohibitions and Treated Wastes	ENCORE	JUL 17, 2014
1083. LDR Treatment Standards and F001 "Chlorinated Fluorocarbons"	ENCORE	JUL 24, 2014
1084. RCRA Regulatory Status of Chlorinated Fluorocarbons Used as Refrigerants	ENCORE	JUL 31, 2014
1085. Universal Wastes, Manifesting and DOT Shipping Names		AUG 7, 2014
1086. CERCLA Hazardous Substances – A Brief Definition		AUG 14, 2014
1087. CERCLA Hazardous Substances – The Petroleum Exclusion		AUG 21, 2014
1088. PCB Concentration Assumptions for Use vs. PCB Disposal	ENCORE	AUG 28, 2014
1089. Universal Waste and Basis for the One Year Accumulation Time Limit		SEP 4, 2014
1090. Product Spills and Waste Determinations	ENCORE	SEP 11, 2014
1091. PCB Concentrations and 10,000 PPM		SEP 18, 2014
1092. PCB Concentrations and 1,000 PPM		SEP 25, 2014
1093. Universal Waste Alkaline Batteries and Self-Transportation		OCT 2, 2014
1094. Universal Waste Lithium Batteries and Self-Transportation		OCT 9, 2014
1095. Universal Waste Batteries and Closed Containers	ENCORE	OCT 16, 2014
1096. PCB Containers and Concentration of PCBs		OCT 23, 2014
1097. Recyclable Chemicals and Zombie Destruction		OCT 31, 2014
1098. Satellite Accumulation Requirements in Washington State	ENCORE	NOV 6, 2014
1099. Satellite Accumulation and "At or Near"		NOV 13, 2014
1100. Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch	ENCORE	NOV 20, 2014

DISCLAIMER - "Two Minute Training" ("2MT") is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING

TO: CH2M HILL PLATEAU REMEDIATION COMPANY

FROM: PAUL W. MARTIN, Senior Environmental Compliance Officer
CHPRC Environmental Protection, Hanford, WA

SUBJECT: REGULATORY STATUS OF CHROMATED, COPPER, ARSENATE, (CCA) WOOD AS WOOD MULCH

DATE: NOVEMBER 20, 2014

<u>CHPRC Projects</u>	<u>CH PRC - Env. Protection</u>	<u>MSA</u>	<u>Hanford Laboratories</u>	<u>Other Hanford Contractors</u>	<u>Other Hanford Contractors</u>
Richard Austin Tania Bates Ty Blackford Bob Cathel Rene Catlow Richard Clinton Larry Cole John Dent Brian Dixon Eric Erpenbeck Stuart Hildreth Mike Jennings Stephanie Johansen Jeanne Kisielnicki Melvin Lakes Jim McGrogan Stuart Mortensen Anthony Nagel Dean Nester Dave Richards Phil Sheely Connie Simiele Roni Swan Michael Waters Jeff Westcott Jeff Widney	Brett Barnes Ron Brunke Bill Cox Lorna Dittmer Rick Engelmann Ted Hopkins Jim Leary Dale McKenney Jon McKibben Rick Oldham Linda Petersen Fred Ruck Jennie Seaver Wayne Toebe Lee Tuott Daniel Turlington Dave Watson Joel Williams	Jerry Cammann Jeff Ehliis Garin Erickson Lori Fritz Panfilo Gonzales Jr. Dashia Huff Mark Kamberg Edwin Lamm Candice Marple Saul Martinez Jon Perry Thomas Pysto Don Rokkan Lana Strickling Lou Upton Christina Zerby	Alan Campbell Grant McCalmant <u>DOE RL, ORP, WIPP</u> Mary Beth Burandt Cliff Clark Mike Collins Tony McKarns Ellen Mattlin Greg Sinton Scott Stubblebine	Bill Bachmann Dean Baker Scott Baker Lucinda Borneman Paul Crane Tina Crane Greta Davis Jeff DeLine Ron Del Mar John Dorian Mark Ellefson Darrin Faulk Joe Fritts Tom Gilmore Rob Gregory Gene Grohs James Hamilton Andy Hobbs Ryan Johnson Dan Kimball Megan Lerchen Richard Lipinski Charles (Mike) Lowery Michael Madison Terri Mars Cary Martin Steve Metzger Tony Miskho Matt Mills Tom Moon Chuck Mulkey Judith Nielsen Mandy Pascual Kirk Peterson Jean Quigley	Mark Rollison Dan Sauereessig Merrie Schilperoort Joelle Stamm Glen Triner Greg Varljen Julie Waddoups Kyle Webster Ted Wooley

DISCLAIMER - "Two Minute Training" ("2MT") is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING

SUBJECT: Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch

Q: Our crazy neighbors are tired of replacing their flower garden mulch every spring so this fall they want to shred and chip some old pressure treated wood that has been preserved with chromated copper arsenate (CCA). Their theory is that the CCA mulch will last for many years versus the single year for untreated mulch. Not even taking into consideration the increased leaching of the CCA from the mulched wood, (or the possible household hazardous waste exemption), should our crazy neighbors be concerned about placing shredded CCA on the ground in terms of basic hazardous waste compliance.

A: These neighbors are crazy so of course they should be concerned.

Per [40 CFR 261.4](#), “Exclusions”, paragraph (b)(9) [[WAC 173-303-071\(3\)\(g\)](#)] it states:

“Solid wastes which are not hazardous wastes.

Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.”

So there is an exclusion for discarded CCA; however, it is for wood utilized for its “intended end use”. Per an EPA guidance memo dated January 6, 2004, entitled, “[Wood Mulch Derived from Waste Lumber Preserved with Chromated Copper](#)” it states:

“This exemption applies to CCA-treated lumber where “...the waste is generated by persons who utilize the arsenical-treated wood and wood product for these materials' intended end use.” Any CCA-treated wood used to produce wood mulch is not the “...materials' intended end use,” therefore wood mulch produced from CCA-treated wood is not exempt from regulation as hazardous waste under 40 CFR 261.4(b)(9).”

Since our crazy neighbors' mulch was not the intended end use of the CCA wood, the mulch is not eligible for the solid waste exemption at WAC 173-303-071(3)(g) or 40 CFR 261.4(b)(9). Hence our crazy neighbors have most likely placed D004 (arsenic) and D007 (chromium) hazardous waste in their flower garden - even if it could be exempt per the household hazardous waste exclusion.

SUMMARY:

- Discarded CCA treated wood that has been used for its intended end use is eligible for the solid waste exemption at WAC 173-303-071(3)(g) and 40 CFR 261.4(b)(9).
- Discarded CCA treated wood that has been shredded and chipped for use as mulch is not eligible for the solid waste exemption since it was not the intended end use.
- Our crazy neighbors now have D004 (arsenic) and D007 (chromium) flowers.

WAC 173-303-071(3)(g), 40 CFR 261.4(b)(9) and the EPA Memo dated January 6, 2004 are attached to the e-mail. If you have any questions, please contact me at “Paul_W_Martin@rl.gov” or at (509) 376-6620.

FROM: Paul W. Martin

DATE: 11/20/14

FILE: c:\...2MT\2014\112014.rtf

PG: 1

DISCLAIMER - “Two Minute Training” (“2MT”) is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch

WAC 173-303-071 Excluded categories of waste.

(3) Exclusions. The following categories of waste are excluded from the requirements of chapter 173-303 WAC, except for WAC 173-303-050, 173-303-145, and 173-303-960, and as otherwise specified:

(g) Treated wood waste and wood products including:

(i) Arsenical-treated wood that fails the test for the toxicity characteristic of WAC 173-303-090(8) (dangerous waste numbers D004 through D017 only) or that fails any state criteria, if the waste is generated by persons who utilize the arsenical-treated wood for the materials' intended end use. Intended end use means the wood products must have been used in typical treated wood applications (for example, fence posts, decking, poles, and timbers).

(ii) Wood treated with other preservatives provided such treated wood and wood waste (for example, sawdust and shavings) are, within one hundred eighty days after becoming waste:

(A) Disposed of at a landfill that is permitted in accordance with chapter 173-350 WAC, Solid waste handling standards, or chapter 173-351 WAC, criteria for municipal solid waste landfills, and provided that such wood is neither a listed waste under WAC 173-303-9903 and 173-303-9904 nor a TCLP waste under WAC 173-303-090(8); or

(B) Sent to a facility that will legitimately treat or recycle the treated wood waste, and manage any residue in accordance with that state's dangerous waste regulations; or

(C) Sent off-site to a permitted TSD facility or placed in an on-site facility which is permitted by the department under WAC 173-303-800 through 173-303-845. In addition, creosote-treated wood is excluded when burned for energy recovery in an industrial furnace or boiler that has an order of approval issued pursuant to RCW 70.94.152 by ecology or a local air pollution control authority to burn creosote treated wood.

40 CFR 261.4 Exclusions

(b) *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:

(9) Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical treated wood and wood products for these materials' intended end use.

FROM: Paul W. Martin

DATE: 11/20/14

FILE: c:\...\2MT\2014\112014.rtf

PG: 2

DISCLAIMER - "Two Minute Training" ("2MT") is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch

MEMORANDUM

January 6, 2004

SUBJECT: Wood Mulch Derived from Waste Lumber Preserved with Chromated Copper Arsenate (CCA)

FROM: Robert Springer, Director
Office of Solid Waste
Jim Jones, Director
Office of Pesticide Programs

TO: RCRA Division Directors
Regional Pesticide Program Leads
EPA Regions I to X

The purpose of this memorandum is to clarify whether or not wood mulch produced from CCA-treated wood is exempt from regulation as hazardous waste under the Resource Conservation and Recovery Act (RCRA), specifically under the exemption at 40 CFR 261.4(b)(9). The exemption, which was originally promulgated in 1980,¹ states that the following solid wastes are not hazardous wastes provided they meet specific criteria: "Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood product for these materials' intended end use."²

This exemption applies to CCA-treated lumber where "...the waste is generated by persons who utilize the arsenical-treated wood and wood product for these materials' intended end use." Any CCA-treated wood used to produce wood mulch is not the "...materials' intended end use," therefore wood mulch produced from CCA-treated wood is not exempt from regulation as hazardous waste under 40 CFR 261.4(b)(9). This is because the intended end uses of the CCA-treated wood products are as building materials, not for manufacturing mulch. For example, CCA-treated wood waste generated during construction using CCA-treated wood, is generated by persons using the wood for its intended end use, and therefore would not be regulated as hazardous waste under this exemption (unless of course this wood waste is then used to produce mulch). In contrast, persons who shred or chip waste CCA-treated lumber into wood mulch for uses such as in landscaping applications, are not using the treated wood for its intended end use. Therefore, the exemption at 261.4(b)(9) does not exempt wood mulch produced from discarded CCA-treated wood.

¹See the November 25, 1980 *Federal Register*, 45 FR 78530, for the rule exempting *arsenical*-treated wood. While today's clarification focuses on wood treated with CCA (chromated copper arsenate), it applies to any and all arsenic-based wood preservatives.

²To further clarify what is meant by "D004 through D017," this exemption applies to discarded wood that is a RCRA hazardous waste because it exhibits the Toxicity Characteristic.

FROM: Paul W. Martin

DATE: 11/20/14

FILE: c:\...2MT\2014\112014.rtf

PG: 3

DISCLAIMER - "Two Minute Training" ("2MT") is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch

This clarification is consistent with the Consumer Awareness Program (CAP) for consumers and users of CCA-treated lumber, which instructs consumers that they “...should never burn CCA-treated wood or use it as compost or mulch.”³ Also, the Consumer Safety Information Sheet for Inorganic Arsenical Pressure-Treated Wood states:

“Do not use treated wood under circumstances where the preservative may become a component of food or animal feed. Examples of such sites would be *use of mulch from recycled arsenic-treated wood*, cutting boards, counter tops, animal bedding, and structures or containers for storing animal feed or human food.”⁴ [emphasis added].

This memorandum is being issued to ensure clarity and a consistent approach throughout the Regions so that CCA-treated wood is properly used for its intended purposes. It is important that the waste stream from CCA-treated wood is not diverted toward mulch manufacturing.

RO 14689

(TC) for any of fourteen specific chemicals represented by D004 through D017 waste codes. However, although this exemption refers to the D004 through D017 waste codes, arsenic (D004) is the chemical that would most likely cause the wood to fail the TC; data indicate that freshly treated wood, as well as some weathered wood, can exceed the regulatory level for arsenic.

³ <http://www.epa.gov/oppad001/reregistration/cca/>

⁴ http://www.epa.gov/oppad001/reregistration/cca/cca_consumer_safety.htm